

**What is claimed is:**

1           1. An internet interface service system, comprising:  
2           an internet network for providing high-speed connection services;  
3           plural interface units for connecting mobile terminals of users to the internet network so  
4 as to provide the users with internet services; and  
5           a central management server connected to the internet network and responsive to the  
6 input into the interface units of settlement information relating to the mobile terminals for  
7 carrying out usage authentications of the mobile terminals by performing data communications  
8 with an external settlement server which carries out settlements upon reception of the settlement  
9 information from the interface units, said central management server allocating dynamic IP  
10 addresses enabling the mobile terminals to carry out internet searches, and said central  
11 management server being responsive to the mobile terminals receiving from the interface units a  
12 signal terminating the internet connections for releasing the dynamic IP addresses allocated to  
13 the mobile terminals and for transmitting charge information with respect to the internet  
14 connection services of the mobile terminals.

1           2. The internet interface service system as claimed in claim 1, wherein the mobile  
2 terminals are at least one of notebook computers, palm top computers, network computers and  
3 PDAs.

1           3. The internet interface service system as claimed in claim 1, wherein each of the  
2 interface units comprises:

3           a first communication unit connected to the mobile units;

4           a second communication unit connected to the internet network for performing  
5 communications with the central management server via the internet network, for transmitting a  
6 mobile terminal-requested signal to the internet network, and for enabling said each of the  
7 interface units to receive a signal comprising information searched in the internet network;

8           a storage unit for storing at least one of communication port activation data for the  
9 interface units, settlement information, encryption data, and deciphering data, and for storing  
10 operating programs for carrying out input and output with respect to usage information of the  
11 mobile terminals;

12           a settlement unit responsive to user input of settlement information into said mobile  
13 terminals in order to settle charges for the use of the interface units of the mobile terminals for  
14 reading and transmitting the settlement information from the mobile terminals of the users;

15           an output unit responsive to connection of the mobile terminals to the interface units,  
16 input of the settlement information by the user, approval of the settlement information by the  
17 central management server, conduct of work through the internet network and termination of the  
18 conducted work, for outputting a statement of usage charges with respect to the usage times of  
19 the mobile terminals;

20 a liquid crystal display (LCD) for displaying the statement outputted by the output unit  
21 for visual confirmation of the users, and for performing a function as a user interface for the  
22 users; and

23 a control unit responsive to connection of the mobile terminals to the first communication  
24 unit for activating communication channels for the mobile terminals, for transmitting to the  
25 external settlement server the settlement information of the users, and responsive to an approval  
26 signal for receiving the dynamic IP addresses from the central management server for allocation  
27 to the mobile terminals, for storing in the storage unit charge information with respect to the  
28 connections of the mobile terminals, for outputting the charge information from the storage unit  
29 to the output unit and the liquid crystal display while, at the same time, transmitting the charge  
30 information to the central management server and the settlement server through the second  
31 communication unit when the connections of said each of the mobile terminals and the internet  
32 interface units are terminated, and for transmitting to the central management server a signal  
33 releasing the allocated dynamic IP addresses.

1 4. The internet interface service system as claimed in claim 3, further comprising a local  
2 area network (LAN) cable for connection between the first communication unit and the mobile  
3 terminals.

1 5. The internet interface service system as claimed in claim 4, wherein the LAN cable is

2 connected to a LAN card mounted in the mobile terminals.

1 6. The internet interface service system as claimed in claim 3, wherein the storage unit  
2 stores driver information for LAN cards provided in the interface units.

1 7. The internet interface service system as claimed in claim 3, wherein the storage unit  
2 stores programs for performing charges for the mobile terminals.

1 8. The internet interface service system as claimed in claim 3, wherein the settlement unit  
2 is a card reader for reading a credit card.

1 9. The internet interface service system as claimed in claim 3, wherein the second  
2 communication unit carries out wireless communications.

1 10. An internet interface service method, comprising the steps of:  
2 when a mobile terminal of a user and an internet interface unit are connected by any of a  
3 local area network (LAN) cable equipped in a first communication unit and a LAN cable  
4 equipped with a LAN card, establishing a communication channel with the mobile terminal by  
5 use of a control unit so as to activate the first communication unit, the control unit being included  
6 in the internet interface unit;

7           outputting from the control unit a message requesting user entry of settlement  
8 information in order to settle charges for the use of the interface unit by the mobile terminal of  
9 the user after the establishment of the communication channel, and, when the user enters the  
10 settlement information, reading the settlement information, transmitting the settlement  
11 information to a settlement server through a central management server, and receiving a  
12 settlement approval from the settlement server;

13           after receiving the settlement approval, receiving a dynamic IP address from the central  
14 management server, allocating the received IP address to the mobile terminal, and performing  
15 data communications by means of the data terminal according to predetermined work through the  
16 internet interface unit and an internet network connected to the internet interface unit; and

17           when a predetermined connection termination signal is inputted to the interface unit by a  
18 connection termination menu provided in one of the mobile terminal and the interface unit,  
19 terminating the communication channel of the mobile terminal by means of the control unit,  
20 outputting charge information stored in the storage unit to an output unit and a liquid crystal  
21 display (LCD) while, at the same time, transmitting the charge information by means of the  
22 control unit to the central management server and the settlement server through a second  
23 communication unit, thereby performing a charging function.

1           11. An interface service system for use with a network providing high-speed connection  
2 service, said system comprising:

3 plural interface units for connecting mobile terminals of users to the network; and  
4 a central management server for controlling use of the interface units by the mobile  
5 terminals;

6 wherein said central management server is responsive to entry of settlement information  
7 by users via the mobile terminals for carrying out usage authentications of the mobile terminals,  
8 and for allocating addresses to the mobile terminals in order for the mobile terminals to carry out  
9 network searches;

10 wherein said central management server is responsive to the mobile terminals receiving  
11 from the interface units, a signal relating to termination of connections, for releasing the  
12 addresses allocated to the mobile terminals; and

13 wherein said central management server transmits charge information with respect to the  
14 network connection services of the mobile terminals.

1 12. The interface service system as claimed in claim 11, wherein said central  
2 management server carries out the usage authentications by communicating with an external  
3 settlement server.

1 13. The interface service system as claimed in claim 11, wherein said central  
2 management server transmits the charge information to an external settlement server.

1           14. The interface service system as claimed in claim 11, wherein said central  
2 management server remotely manages the plural interface units.

1           15. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3           a first communication unit connected to the mobile units; and

4           a second communication unit connected to the network for performing communications  
5 with the central management server via the network, for transmitting a mobile terminal-  
6 requested signal to the network, and for enabling said each of data for the interface units to  
7 receive a signal comprising information searched in the network.

1           16. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3           a storage unit for storing at least one of communication port activation data for the  
4 interface units, settlement information, encryption data and deciphering data, and for storing  
5 operating programs for carrying out input and output with respect to usage information of the  
6 mobile terminals.

1           17. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 a settlement unit responsive to user input of settlement information into said mobile  
4 terminals in order to settle charges for the use of the interface units of the mobile terminals for  
5 reading and transmitting the settlement information from the mobile terminals of the users.

1 18. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 an output unit, responsive to connection of the mobile terminals to the interface units,  
4 input of the settlement information by the user, approval of the settlement information by the  
5 central management server, conduct of work through the network and termination of the  
6 conducted work, for outputting a statement of usage charges with respect to the usage times of  
7 the mobile terminals.

1 19. The interface service system as claimed in claim 18, wherein each of the interface  
2 units comprises:

3 a liquid crystal display (LCD) for displaying the statement outputted by the output unit  
4 for visual confirmation of the users, and for performing a function as a user interface for the  
5 users.

1 20. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:



3 a control unit responsive to connection of the mobile terminals to the first communication  
4 unit for activating communication channels for the mobile terminals.

1 21. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 a control unit for transmitting, to an external settlement server, the settlement information  
4 input by the users.

1 22. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 a control unit responsive to an approval signal for receiving the addresses for allocation to  
4 the mobile terminals.

1 23. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 a control unit which receives the addresses for allocation to the mobile terminals, stores  
4 in a storage unit charge information with respect to connections of the mobile terminals, outputs  
5 the charge information from the storage unit to an output unit and a liquid crystal display while,  
6 at the same time, transmitting the charge information to the central management server and a  
7 settlement server through a communication unit when the connections of said mobile terminals to

8 the interface units are terminated.

1 24. The interface service system as claimed in claim 11, wherein each of the interface  
2 units comprises:

3 a control unit which transmits, to the central management server, a signal releasing the  
4 allocated addresses.